Equipment Matrix

(*non marine oil terminal, non home heating oil*)

	DEP	OSFB	OSFM	EPA	Industry Standards
Applicability	Underground Piping Only	Supply Tanks only	Storage Tanks over 60 gallons	Single Tanks over 660 or 1320 aggregate	Petroleum Terminals, Bulk Plants and Motor Vehicle Fueling
Upgrade Requirements	Secondary containment for piping, new or replacement, installed after 1991. All unprotected metal piping prohibited after 1995 (38 MRSA 570-K)	None	None	Plan required of all regulated facilities within 6 months of operations and fully implemented no later than one year. (40 CFR Part 112.3)	API Std. 653
Spill Containment	Piping only Secondary containment for piping (38 MRSA 570-K, 38 MRSA 564, 565, Chapter 691 Sections 5,6,7,8,9,10)	* Tanks over 660 gallons need control of spillage to prevent damage to important facilities, adjoining properties or waterways (NFPA – 31 2-5.5)	Control of spillage of Class I, II and IIIA liquids to prevent damage to important facilities, adjoining properties or waterways(no allowance for precipatation) (OSFM 2-3.3.1) Automotive and marine service station tanks (OSFM 1991 1-4.3 same language as above) Also see NFPA 30 2.3.2.3.3 for secondary containment tank option for compliance	100% containment for largest tank plus allowance for precipitation 40 CFR Part 112.7 e(2) ii	API Std. 2610 PEI/RP 200 STI F911-98 STI F921-99
Overfill Protection	N.A.	Vent alarms for outside tanks up to 5000 gallons (OSFB 9-14) Visual or audible overfill device for inside #1 and #2 tanks (NFPA 31 3-6.3)	High level alarms or shut off devices for automotive and marine service station tanks(as of 1991 OSFM rules 1-4.5.1) Tanks at terminals accepting Class I liquids from a pipeline must have written procedures and communication systems or devices to prevent overfills. (OSFM 2-10)	Alarms, shut-off devices or procedures (40 CFR Part 112.7e(2)viii)	API Std. 2350 API Publ. 1637 PEI/RP 200
Leak Detection Equipment	Piping only Continuous Interstitial Space Monitoring (see previous citation)	N.A.	Automotive and marine service station tanks in vaults (OSFM 1-4.4.2(f)	N.A.	API Std. 650-Appendix I PEI/RP 200
Corrosion Protection	Piping only Yes, with periodic testing for cathodically protected piping (see previous citation)	Piping protected against corrosion (NFPA – 31 3-1.5). Tank foundations designed to minimize corrosion (NFPA 31 2-1.3.1)	All aboveground and underground piping protected against corrosion (OSFM 3.6) Tank foundations designed to minimize corrosion (OSFM 2-6.1) Automotive and marine service station tanks and piping in contact with soil must be protected from corrosion (OSFM 1-4.7)	Proposed changes would require cathodic protection for new tank bottoms	API RP 651 API RP 652 STI R892-91 STI R893-89 NACE RP 0169-96

* Note: The OSFB (OSFB 9-13.3.2) allows inside storage up to 990 gallons aggregate to be connected to one appliance while NFPA 31(NFPA 31 2-4.5) currently allows only up to 660 gallons aggregate.

Operation Matrix

(non marine oil terminal, non home heating oil)

	DEP	OSFB	OSFM	EPA	Industry Standards
Applicability	Underground Piping Only	Supply Tanks only	Storage Tanks over 60 gallons	Single Tanks over 660 or 1320 aggregate	Petroleum Terminals, Bulk Plants and Motor Vehicle Fueling
Periodic Integrity Testing	N.A.	None	None	Tanks, piping and valve testing required, but frequency no specified (40 CFR Part 112.7e(2)vi. 112.7e(3)iv.)	API Std. 653 API Std. 570 STI SP001-00 API RP 1110
Inspections/ Maintenance	Annual testing of leak detection probes and cathodic protection if applicable (38 MRSA 570-K, 564, 565 /Chapter 691 Section 5,6,7,8,9,10)	Tanks maintained liquid tight and any leaks repaired NFPA 31 2-1.4.6	"Maintenance and operating practices shall control leakage and prevent spillage of flammable liquids" (OSFM 5-5.3) Tanks maintained liquid tight and any leaks repaired OSFM 2.8.6	Tanks, dikes, containment/sumps,valves and piping according to site specific written procedures 112. 7 (e) (2) iii (b) 112.7 (e) (2) vi 112.7 (e) (2) x 112.7 (e) (3) iv	API Std. 653 API Std. 570 STI SP001-00 API RP 1626 API RP 1627 API Std. 2015 API Publ 4602 API Publ 1638
Product Transfer	N.A.	N.A.	*Loading rack overfill devices (OSFM 5-4.4.1.10/11/12)	Loading rack spill containment and procedures (40 CFR Part 112.7(e)4	API Std. 2610 API RP 1004 API Publ 1500 API Publ 1529
Security	None	None	Fencing for automotive and marine service station tanks not in vaults (1991 OSFM rules 1-4.6.1)	Fencing, valve/pump lock –out, lighting (40 CFR Part 112.7(e)9	API Std. 2610 IES Lighting Handbook
Training	None	None	Fire protection equipment only (OSFM 5-5.4.1)	Training on operations and maintenance of spill prevention equipment, applicable control laws, periodic spill prevention briefings (40 CFR Part 112.7(e)10	API Std. 2610
Spill Response Plan	Report spills (38 MRSA 550)	Report Spills (OSFB Appendix A-2)	Response plan limited to fires or other "emergencies" (OSFM 5-5.4.1)	Facilities with 1,000,000 gallons of capacity, plus other threat factors (40 CFR Part 112.20)	API Std. 2610

*Note: According to the 2000 version of NFPA(30 5-6.4)- "Loading and unloading facilities shall be provided with drainage systems or other means to contain spills." Not currently included in the OSFM rule (1990 version of NFPA 30).